Organizational Culture and Corporate Governance in Russia: A Study of Managerial Turnover

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Abstract: In this paper, we investigate the possible impacts of ownership structure and corporate performance on managerial turnover using a unique dataset of Russian corporations. We argue that Russia is regarded as a country with a highly authoritarian and collectivism-oriented national culture and this peculiarity is the key to disentangling the puzzle of the statistically weaker relationship between firm performance and CEO renewal in Russian firms. Standing on this viewpoint, we deal with not only CEO dismissal, but also managerial turnover within a company as a whole. By conducting multinomial analysis that incorporates both factors, we found significant relationship between firm performance and CEO dismissal, while, consistent with most previous studies, a standard logit analysis of CEO turnover revealed no clear relationships. We also found that the presence of a dominant shareholder significantly increases the likelihood of turnover of whole management team, while foreign ownership tends to cause partial (CEO only) turnover. Our empirical result is consistent with the “cultural view” of management practice as put forward by House et al. (2004).

Keywords: organizational culture, corporate governance, managerial turnover, Russia.

JEL classification numbers: D21, G34, G35, P31, P34.
1. Introduction

The diffuse ownership structure of public companies requires that shareholders delegate the daily management of business affairs to professional managers. However, since not all managers consistently devote themselves to satisfying their shareholder principals, the establishment of effective governance systems to discipline top management is essential.

To control the potential agency conflicts between shareholders and managers, several mechanisms of internal control reside in modern corporations. In this regard, the corporate governance literature pays close attention to insider ownership, boards of directors, the dual leadership system (i.e., a separation of the chief executive officer (CEO) and the board chairman positions), and the shareholders’ right to remove ineffective managers. In many countries, including Russia and other post-communist states, corporate law provides that the contract relationship between a company and its management officers may create a trust that enshrines the right to arbitrarily dismiss corporate officers. This right may be assigned to the general shareholders’ meeting and the board of directors, if such an authority is delegated to the latter by the former. This legislative ordination is intended to be a formal tool for the governance of corporations, allowing necessary managerial renewals in favour of shareholder interests.

From this viewpoint, an empirical test examining the probability of managerial dismissal initiated by a shareholder(s) or through an entrusted board member(s) and the positive link between poor corporate performance and managerial turnover is of considerable significance in measuring the viability of the aforesaid shareholders’ right, that is, the enforcement of the corporate law in an environment of concern. In the context of transition economies, such empirical work is also important for assessing development of the private corporate sector in a country under “great transformation” (Kornai, 2006) and the degree of adaptation by its citizens to the new principles of business life in a market economy.

Financial economists repeatedly confirm the economic meaningfulness and statistically significant impacts of the corporate governance mechanism and firm performance on CEO turnover in developed countries and emerging markets. Despite much empirical evidence originating from studies on the United States (Weisbach, 1988; Martin and McConnell, 1991; Denis et al., 1997; Parinno et al., 2003; Lehn and Zhao, 2006), similar results have been reported by studies on Canada (Zhou, 2000), the United Kingdom (Dahya et al., 2002; Hillier et al., 2005), Denmark (Neumann and Voetmann, 2005), Germany (Kaplan, 1995), Italy (Brunello et al., 2003), Korea (Chang and Shin, 2006), Japan (Kaplan and Minton, 1994; Kang and Shivdasani, 1997; Abe and Oguro, 2004), Taiwan (Yen and Chen, 2005), Australia (Suchard et al., 2001), and Venezuela (Garay and González, 2005), alongside worldwide international comparisons (Kaplan, 1994; Defond and Hung, 2004). A detailed review of these earlier studies falls outside the scope of this paper, but what we want to stress here is that most previous work found that the presence of
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non-managerial large shareholders and poor stock performance positively enhanced the likelihood of top executive turnover.

In transition economies too, ownership structure and firm performance were verified to be significantly related to the likelihood to replace top managers in the Ukraine (Warzyniski, 2003), the Czech Republic (Eriksson, 2005), and China (Kato and Long, 2006). As is discussed later, empirical evidence also exists for the relationship between ownership structure and managerial turnover in Russian firms. In contrast, the current literature contains only a handful of papers supporting the impact of firm performance on CEO turnover. As many researchers of the Russian economy argue, the insignificant or neutral association between poor company performance and managerial turnover in Russian firms may be explained by strong managerial entrenchment against a background of existing de-facto insider control as a result of the mass-privatization policy, weakly functioning internal corporate organs, the unenforceability of corporate law, a lack of detailed disclosure, and deep informational asymmetry between management and shareholders. While we do not refute the plausibility of these arguments, we feel there is room for more detailed research on this topic considering the specific features of the Russian business environment in its transition dimensions (Holden et al., 1998).

In this paper, we deliberate the impacts of ownership structure and firm performance on managerial turnover using a unique dataset of Russian corporations, obtained by a Japan-Russia large-scale questionnaire survey of joint-stock companies conducted in 2005. The survey covers 822 manufacturing and communications enterprises located in 64 of the 89 regions of the Russian Federation. This paper utilizes the results of the joint survey as the base of our empirical analysis.1

From a methodological perspective, this study is different from most previous work in that we deal with not only CEO dismissals but also managerial turnover within companies as a whole, taking the peculiarities of Russian organizational culture into consideration. Russia is regarded as a country with a highly authoritarian and collectivism-oriented national culture, in remarkable contrast to the United States — a country characterized by low power distance and strong individualistic work values. The cultural gap between the two nations is the key to disentangling the puzzle of the statistically weaker relationship between firm performance and CEO renewal in Russian firms. We confirmed that non-payment of dividends is significantly correlated with CEO turnover in our samples. We also found that the presence of a dominant shareholder significantly


2 In Russia, the title of CEO is a relative new appointment, appearing only relatively recently among listed firms. The majority of Russian companies still use the title of General Director or Company President for their top executives. With this in mind, in this paper we utilize the title of CEO for all levels of top management in Russia for simplicity.
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increases the likelihood of turnover of whole managerial team in his/her company, while foreign ownership tends to cause partial (CEO only) turnover.

The remainder of this paper is organized as follows: The next section reviews preceding studies of managerial turnover in Russia. The peculiarities of Russia’s organizational culture and management practice from a comparative perspective are discussed in the third section. The fourth section presents our testable hypotheses and empirical methodology. The data description is provided in the fifth section and the empirical results are presented in the sixth section. The seventh section summarises major findings and concludes the paper.

2. Managerial turnover in transition Russia: A literature review

Managerial turnover offers a unique dimension to the study of corporate governance, and is a subject attracting much attention among those involved in the research of Russian firms in transition. In fact, a comprehensive literature survey of 202 research works on enterprise reform and corporate governance in Russia by Iwasaki (2007a) confirms that 25 articles deal with the CEO turnover frequency, the determinants of CEO dismissals, and the impact of CEO renewal on subsequent firm performance and restructuring activities (Table 1). As this table shows, most papers were published in 2000 and onwards.

The background to the growing research interest in CEO turnover in Russia is threefold: First, as Dolgopyatova (2007) points out, despite the insider-favourable privatization policy of the early 1990s, most equity capital of Russian enterprises is now owned by private outside investors, suggesting that many CEOs do not own their companies, rather they are employed as management professionals. Second, aging of the so-called “red executives” has given momentum to delegating company management to new generations in this new century; in 1997 the average age of top managers was nearly as high as their retirement age, with the proportion of CEOs older than 60 topping 28%. Third, against the background of declining insider control and the mass retirement of Soviet-generation managers, according to 14 studies that report on CEO turnover frequency, the average CEO tenure (7 to 8 years) and turnover frequency (10 to 11%) for Russian corporations over the early 2000s have been essentially comparable to those for American and Japanese companies. To sum up, the appointment and turnover of top executives now matters as much in Russia as in developed industrial countries and other reforming transition economies.

All studies listed in Table 1, except that by Linz (1996), highlight the critical effects of ownership structure on managerial turnover. They share the following four common perceptions. First, outside ownership is positively and highly correlated with CEO turnover frequency. Second, and in contrast, insider shareholding significantly hampers CEO changes since 40 to 50% of enterprises with dominant ownership by managers and worker collectives have a holdover CEO

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3 For more details, see Iwasaki (2007a).
from the Soviet days, a much higher proportion compared with that in other types of corporation (15 to 20%). Third, substantial changes in ownership structure resulting from the replacement of the largest or dominant shareholders are highly likely to cause CEO turnover. Fourth, the higher the investment share of a top shareholder and the ownership concentration rate, the more frequent CEO turnover. Two other points are worthy of note: the government does not necessarily speak for the current management, considering that state ownership increases CEO turnover as well (Kapelyushnikov, 2001; Muravyev, 2001, 2003a), and the frequency of insider CEO succession is positively correlated with shareholding by insiders and the federal government, while the presence of outside investors and local governments enhances the possibility of outsider succession (Muravyev, 2003b; Kapelyushnikov and Demina, 2005).

A more debatable aspect in this regard is the role of corporate performance as a trigger for CEO turnover. Most of the papers listed in Table 1 have suggested either an extremely limited correlation between these two factors (Kapelyushnikov, 2001; Dolgopyatova and Kuznetsov, 2004) or denied a significant correspondence (Goltsman, 2000; Yasin, 2004). The exhaustive event study by Rachinsky (2002) covering 110 listed corporations also supports these views finding that only 19.5% of all 113 CEOs who left their post from 1997 to 2001 resigned to take responsibility for the worsening of their business results. This percentage is much lower than that of CEOs who stepped down for nonmanagerial reasons, such as career changes, age-limit retirements, and internal reassignments resulting from organizational changes and nonmanagerial problems (51.3% in total), and is even lower than that of those who resigned for other reasons, such as managerial intervention by local governments, social conflicts including labour disputes, legal procedures concerning corporate rehabilitation, takeover, and others (24.8% in total). Given these findings, Rachinsky (2002) states that it is difficult, even in listed companies, to drive out top management on the grounds of poor performance and, consequently, CEO changes are not sensitive to firm performance in Russia.

The remaining two studies listed are those of Muravyev (2003a) and Kapelyushnikov and Demina (2005), both of which demonstrated a positive relation between poor corporate performance and managerial turnover. Using data obtained in a survey of 437 Russian enterprises, Muravyev (2003a) regressed CEO turnover in the period from January 1999 to May 2000 on industry-adjusted labour productivity and other control variables including ownership structure, board composition and company size, and found a statistically robust relationship between past

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4 For instance, a survey covering 334 industrial firms revealed that, as of the end of 2001, the largest shareholders in enterprises whose CEOs were appointed in or after 1998 had an average ownership of 45.1%, whereas those in enterprises whose CEOs had been in office for 10 years had an average ownership of 24.2% (Dolgopyatova, 2003).

5 CEO turnover occurred in 69 of the 110 companies surveyed. Twenty companies experienced the phenomenon twice, and 9 companies experienced it three or more times during the survey period (op. cit.).
firm performance and turnover frequency. He concludes, “the fact that bad managers (either incompetent or opportunistic) are punished implies that the widely held assumption about virtual nonexistence of corporate governance in Russia is not valid” (p.168). Using the results of a longitudinal questionnaire survey of industrial firms\(^6\) carried out between 1997 and 2003, Kapelyushnikov and Demina (2005) performed probit estimation of the CEO-turnover model, and confirmed that the possibility of CEO replacement in loss-making firms is, on average, 8.5% higher than that in profitable corporations. Because their dataset consists of many unlisted firms and ex-state-owned privatized firms, their empirical evidence may suggest that the positive link between poor performance and CEO renewal becomes usual governance practice in daily management life in contemporary Russia.\(^7\)

Despite the empirical analyses conducted by Muravyev (2003a) and Kapelyushnikov and Demina (2005) clearly indicating that bad firm performance enhances the likelihood of top executive turnover in Russian firms, these studies are in a minority position. While it is not unreasonable that extremely strong managerial entrenchment may hinder shareholders from replacing poor performing CEOs, taking into consideration the abovementioned facts about the Russian business sector, we wonder whether corporate executives can, in fact, simply refuse to take any responsibility for their business performance and maintain their favourable positions in most cases. We question whether it is an appropriate assumption that Russian company executives follow the same accountability practice as American CEOs do, because Russia’s organizational culture differs remarkably from America’s, creating a sizeable gap with respect to work values and the behavioural patterns of corporate managers between the two nations. In the following sections, we will expand this idea and test our hypotheses on the relationship between firm performance and managerial turnover using a unique dataset of Russian enterprises.

3. Russian organizational culture and management practice: A comparative perspective

[In Russia] we can observe an astonishing continuity in communitarian values (such as equivalence and entitlement) and a decision-making process which consists of strong centralism (one-man-leadership, paternalistic relations towards subordinates) and collective participation (based on consensus, not majority). These values stem from the medieval village commune (mir,

\(^6\) This is the “Russian Economic Barometer” survey project—one of representative longitudinal enterprise surveys in Russia. More information is available at: http://www.imemo.ru/barom/.

\(^7\) Regarding the interrelation between managerial turnover and firm performance, 9 studies shown in Table 1 examined the effects of the renewal of top-notch managers on ex post corporate performance and restructuring activities. Five of them evaluated the refreshment of management as positive (Barberis et al., 1996; Klepach et al., 1996; Filatotchev et al., 1999; Krueger, 2004; Kapelyushnikov and Demina, 2005), and the other four hold a neutral or negative view of its influence (Rachinsky, 2001; Peng et al., 2003; Dolgopyatova and Kuznetsov, 2004; Yasin, 2004), leaving room for further discussion.
obshchina), and survived in the USSR in the form of socialist workers councils, collective farms (kolhozy), and the Communist Party’s ‘democratic centralism’. Today these values live on in privatized enterprises, where the management is resistant to job cuts. Exclusion of outsiders and retention of information are common features in all these organizational structures (Sprenger, 2000, p. 15).

Organizational culture varies greatly from country to country, and it is important to identify differences in management practices between them. The culture of Russian business firms are no different, exhibiting a unique set of issues concerned with interpersonal relationship, empowerment, and accountability. Following Sprenger (2000), observers and analysts of enterprise management in the USSR and contemporary Russia take a common standpoint on its socio-cultural background, using such descriptions as “the House of Russia” (Bollinger, 1994), “a commitment to the collective welfare of the state” (Holt et al., 1994), “deference and obedience to [the Russian Orthodox] Church doctrine and religious authority figures” (Puffer and McCarthy, 1995), “moral development under totalitarian rule” (Taylor et al., 1997), a “matrioshka hierarchical structure” 8 (Vlachoutsicos, 2001), and “more ‘Asiopa’ than Eurasia” (Latova and Latov, 2003). In other words, they have no disagreement with the view that Russian corporate management is still driven by a strong collective mentality and an adherent authoritarian orientation even though Russia is now in the convergence process of economic ideology toward Western market-oriented and social values (Ralston et al., 1997; Naumov and Puffer, 2000; Beekun et al., 2005).

There can be no doubt that Russian organizational culture has certain peculiarities; the question is how, and to what extent, it may diverge from that of other nations. The attempts of management researchers to classify countries by their underlying work value system are worthy of mention. Many such cross-cultural comparative studies have adopted Geert Hofstede’s model of national culture as the conceptual basis for empirical research. Hofstede (1980) developed a watershed theoretical foundation regarding the relationship between national culture and work values that inspired many subsequent international research endeavours (Fernandez et al., 1997). Hofstede’s model is best known for its four cultural dimensions: (a) power distance, (b) individualism versus collectivism, (c) uncertainty avoidance, and (d) masculinity versus femininity.

Power distance measures the extent to which people accept inequality in power distribution. In societies with higher power distance, people tend to accept stronger authoritarianism than those in societies with lower power distance. The individualism-versus-collectivism dimension refers to the degree of individualism in a society. Individualism pertains to societies in which the relationship between individuals has little sense and one is expected to look out mostly for oneself or one’s immediate family. In contrast, collectivism applies to societies where a group takes

8 The Matrioshka management system “enhances vertical integration by fostering personal loyalty, commitment, and clarity of communication among superiors and subordinates at all levels” (op. cit., p. 177).
precedence over individuals and group members anticipate certain protection in exchange for unconditional loyalty to the group. Uncertainty avoidance pertains to a society's tolerance for future uncertainty and ambiguity. The masculinity-versus-femininity distinction focuses on gender role in society. In feminine societies we see greater overlap in roles between men and women than in masculine societies.  

In most cases, researchers have employed original questionnaire surveys in target countries to measure the four cultural dimensions. These are multi-item questionnaires using a 5-point Likert-type scale ranging from “strong disagreement” (1) to “strong agreement” (5). Multinational surveys (Hofstede 1991, 1993; Fernandez et al., 1997; House et al. 2004), bilateral comparisons between Russia and the United States (Elenkov, 1997, 1998), and single-country studies (Bollinger 1994; Naumov and Puffer, 2000) have produced various survey results. Table 2 shows the survey results for Russia and the United States. Because our concern is directed toward the in-group relationship between top managers and their subordinates, we focus on the dimensions of power distance and individualism-versus-collectivism. Although Hofstede’s work gives only estimated scores for Russia, we can confirm that follow-up studies support his expectation that the Russian cultural profile is more authoritarian and less individualistic than that of the United States. Figure 1 plots the combination between the two cultural dimensions in 61 societies according to an international research project conducted by House et al. (2004). The country scores for both dimensions are standardized into a distribution with a mean of zero and standard deviation of one to enable a comparison across scales. It can be seen that Russia and the United States are poles apart in terms of the degree of power distance and individualism; the United States together with Canada, the UK, and some European continental countries has lower power distance and greater individualism orientation. Russia, on the other hand, is highly authoritarian and has a collectivism-oriented national culture. Many developing countries in the Asian and South American continents share such features. Japan takes a somewhat central position between the two extremes but closer to that of the United States. Some transition economies including Hungary and Slovenia are located near from Russia, suggesting the historical path-dependence of the socialist system. It is noteworthy that, using different research methodologies from Hofstede’s model, Ralston et al. (1997), Sommer et al. (2000), and Beekum et al. (2005) reached similar conclusions regarding the cultural peculiarities of Russian organizations. From the perspective of organizational culture therefore, previous cross-cultural comparative

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9 For more detailed discussion, see Hofstede (1980, 1991), Bollinger (1994) and Naumov and Puffer (2000). In recent years, Hofstede’s model has been remarkably expanded by several researchers interested in this study, and their extended models comprise many other cultural dimensions including assertiveness, dogmatism, humane orientation, long-term orientation, paternalism, performance orientation, political-influence orientation, and so forth.
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studies strongly suggest that Russia forms a striking contrast to the United States and many other
developed countries.

Worldwide differences in organizational culture help in understanding differences in
management practice including accountability behavior. In the United States, CEOs serve as a
bridge between shareholders and management team, taking sole responsibility for management
outcomes in general. Said another way, American CEOs are clearly accountable for their
organization’s business activities and performance and take their punishment with good grace
against a backdrop of low power distribution and strong individualistic orientation. In contrast,
Japanese CEOs are not as responsible as American top managers are. Rather, they are regarded
only as one of the key members of the management team. When company performance is poor, it
does not have to be the CEO alone who takes full accountability; responsibility is also shouldered
by other management members. Furthermore, it is highly likely that a management team in Japan
will take collective responsibility and resign as a group when the company performs extremely
poorly or in the case of a significant scandal regarding its corporate affairs (Abe and Jung, 2004).
The same logic can be applied also to Russia—a country with higher power distance and stronger
collectivism orientation than the United States and Japan. It is possible that Russian CEOs are
able to avoid punishment for their poor performance more effectively than American and Japanese
top managers, due to weak market institutions represented by an underdeveloped corporate control
market and unenforceable disclosure regulations. In this regard, Fey and Denison (2003)
characterize management accountability practice in Russia as a highly irresponsible proclivity,
arguing that:

Historically, Russian decision making has been very centralized, with little empowerment. This
pattern was primarily imposed from the top, but to some degree was also encouraged from below.
Because Russian managers have traditionally been punished for negative results, even those beyond
their control, they tend to exhibit learned helplessness and a strong desire to want someone else
to make decisions. […] In Russia, being able to blame someone else is often regarded as tantamount to
solving a problem (p. 687).

Their statement strongly suggests that the organizational culture in Russia allows top managers
to behave as such more so than in countries with individualism-respected and less
authoritarian-oriented cultures like the ceteris paribus of the United States. If the above
discussions are, in actuality, close to the mark concerning company management in contemporary
Russia, an examination is warranted of the impact of firm performance not just on CEO turnover
alone, but also on managerial turnover within a company as a whole. With this in mind, we will
next consider testable hypotheses and propose empirical methodology to disentangle the mystery of
the non-relationship between corporate performance and CEO turnover in Russia.
4. Testable hypotheses and empirical methodology

Relying on the abovementioned presumptions, we attempt to investigate turnover events of not only top managers, but also other high-ranking corporate officers with responsibility for finance, accounting, strategic planning, marketing, or sales management. Such a consideration is crucial in order to identify the difference in management style between Russian firms and firms in other countries such as the United States. Suppose Russian managers can be characterized as more collective and authoritarian oriented than those in the United States. Under such circumstances, when company performance turns out to be poor, Russian CEOs might not take as much responsibility and thus avoid as much turnover as their American counterparts. Similarly, as discussed in the previous section, supposing the power distance between the top manager and his/her subordinates in a Russian firm is larger than that in other developed countries, when company performance is poor, Russian CEOs can transfer responsibility to other senior staff members and retain their positions against external pressure. In sum, based on cultural studies, we propose the following hypothesis:

\[ H_1: \text{Under a collective decision-making system, or in the context of wide power distance between top managers and their subordinates, the probability of CEO turnover is mitigated by turnover of other managerial staff when company performance is poor.} \]

To investigate the above hypothesis, we estimate the turnover probability of different types of manager. More concretely, we consider four possible events in our examination: turnover of both the CEO and the senior managers (Type I), turnover of the CEO only (Type II), turnover of the senior managers only (Type III), and no management turnover (Type IV). This gives us four mutually exclusive outcomes. Then, we compare the standard logit estimates of Type II turnover, focusing solely on CEO dismissals, and the estimates of multinomial probit (MNP) estimates for each of the four types of turnover events.\(^1\)

Next, let us consider the determinants of each turnover probability. If a dominant shareholder, who is in many cases either a rich Russian private investor or a non-financial corporate shareholder including holding companies and other business groups, is present in a company, such a shareholder has strong incentive to monitor the activities of its company managers. With intensive monitoring, it might be possible for the dominant shareholder to identify who is really responsible for the poor outcome. Hence, dominant shareholders with deep insight into the management activities of the companies they fund may exert pressure not only on CEO but also on

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\(^1\) In this paper, we do not use the multinomial logit (MNL) model for our empirical analysis because the IIA assumption for MNL is rejected. Since MNP with a general covariance matrix takes a prohibitively long time to converge, we assume that all the covariances between type \(i\) residuals and type \(j\) residuals except for diagonal elements are identical.
another individual manager to resign to account for his/her poor performance, possibly through their unofficial contact with the management. It is also possible for the dominant shareholder to call on the entire management team to resign, when, for instance, bad corporate performance has its roots in the ineffective coordination of collective decision-making on strategic management matters or in dire effects brought about by opportunistic behaviour as a team. Taken together, the dominant shareholder likely tries to specify the cause and responsibility of such performance in the company and is inclined to dismiss only the responsible person(s), that is,

\[ H2: \text{The company tends to experience more Type I or Type III turnover if the company has a dominant shareholder.} \]

Then, suppose that a foreign investor(s) hold a significant amount of shares. Because monitoring Russian managers is more costly and time-consuming for foreign than domestic shareholders, it is difficult to specify who should shoulder blame for the company’s poor performance. In such a case, the CEO solely is expected to be punished, that is,

\[ H3: \text{The company tends to experience more Type II turnover if the company has a foreign shareholder(s).} \]

Let the value to the \( i \) th company of choosing turnover type \( j \) (\( j = 1, \ldots, 4 \)) be \( y_{ij}^* \), and assume \( y_{ij}^* \) depends on company performance \( (\text{Performance}) \), corporate governance-related variables such as ownership structure \( (\text{CG}) \), and other variables including firm size, legal form of incorporation, industrial dummies \( (X) \), and an error term \( \varepsilon_{ij} \):

\[
y_{ij}^* = \alpha^j + \beta_1^j \text{Performance}_i + \beta_2^j \text{CG}_i + \beta_3^j X_i + \varepsilon_{ij}.
\]  
(1)

Using Type IV (No turnover) as the base case, we adopt the MNP model to estimate the relationship between company performance and the type of turnover.

The probability of observing Type \( j \) turnover, \( y_{ij} = 1 \) is:

\[
P_{ij} = \Pr[y_{ij} = 1] = \Pr[y_{ij}^* > y_{ik}^*, \forall k \neq j | \text{Performance}_i, \text{CG}_i, X_i].^{11}
\]  
(2)

If there are only two outcomes such as No turnover and CEO turnover, (2) can be written as a standard probit or logit model.

5. Data description

To perform regression analysis based on the abovementioned methodology, we employ detailed micro data of Russian non-financial joint-stock companies with more than 100 employees. The data derives from the joint enterprise survey conducted in 2005 by Hitotsubashi University and

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11 See Stern (1997) for details of the procedure for working with the MNP model.
State University Higher School of Economics. Our survey is unique in several aspects. First, it contains more than 100 questions on detailed company management, capital and ownership structures, board composition, and the relationship between managers and shareholders and other stakeholders. Second, the questionnaires were completed after interviews with 822 company executives. Of these 822 respondents, 94.8% were company presidents (or CEOs or general directors) or vice presidents. The remaining respondents were board chairmen (1.6%) or senior managers responsible for corporate governance affairs (3.6%). Third, 822 companies located in 64 regions of the 89 constituent entities of the Russian Federation replied with valid answers to the survey, and the proportional distribution of these companies by federal region is very close to that of the actual regional distribution of business organizations according to official statistics. And finally, the firm size and sectoral composition of the surveyed firms is represents well the actual distribution of medium- and large-scale joint-stock companies by industry. The average number of workers per company was 1,884 (median: 465). The total number of workers of these surveyed firms was 1,549,008, which accounted for 10.3% of the total workforce in both the industrial and the communication sectors through 2004 according to official statistics (Rosstat, 2005).

Out of 822 respondents, we omitted those from closed joint-stock companies and workers’ joint-stock companies (people’s enterprises) due to the specific nature of their internal control system stipulated by a special law regulating these legal entities. We also omitted those from companies that refused to answer to at least one of the questions regarding managerial turnover, relationship between shareholders and managers and company performance, which left us with data from 407 respondents.

Our survey contains many items regarding the turnover of both CEO or board members and senior managers. One of the drawbacks of the survey is its weakness in accounting information. Most surveyed companies were not listed. Although we asked questions on company performance such as profit, dividend and sales growth, such variables most likely contain many measurement errors. In the following empirical analyses, it is important to take it into account the characteristics of the data.

12 Dolgopyatova and Iwasaki (2006) provide a comprehensive explanation of the survey, including the sampling procedures, questionnaires, sample statistics, and comparisons with other surveys.

13 The detailed sectoral breakdown of the 822 companies is as follows: (1) Fuel and energy (66 firms; 8.0%), (2) Metallurgy (36 firms; 4.4%), (3) Machine-building and metal working (255 firms; 31.0%), (4) Chemical and petroleum (33 firms; 4.0%), (5) Wood, paper, and paper products (63 firms; 7.7%), (6) Light industry (51 firms; 6.2%), (7) Food industry (169 firms; 20.6%), (8) Construction materials (78 firms; 9.5%), and (9) Communications (71 firms; 8.6%).

14 There are two types of stock corporation in Russia – open and closed companies. The stock of a closed company cannot be traded without the permission of all stockholders. To be a closed company, several criteria such as the number of shareholders and the amount of capital should be met (Iwasaki, 2007c). For details on workers’ joint-stock company, see Iwasaki (2007b).

15 Another point of note is its response rate. Because our survey was interview based, the response
The variables we use in our empirical model (2) are as follows:

\( y \): The CEO turnover dummy takes unity if the CEO left the company between 2001 and 2004 on the initiative of shareholders, otherwise, the dummy takes zero. The turnover dummy of senior managers takes a value of 1 if the company reports that many managers responsible for finance, accounting planning, marketing and sales left the company between 2001 and 2004. The turnover index is created from these two dummy variables, which gives us four mutually exclusive outcomes.

**Performance:** As independent variables representing corporate performance, we utilize two different indices: (1) a dividend payment dummy \((DIVPAY)\) that takes unity when dividends on common stock were paid between 2001 and 2004, otherwise zero, and (2), a sales growth index \((SALGRO)\) that captures the relative sales growth to the industrial average from 2000 to 2004. The original variable is an index (1 for doubled or more sales growth during the period, 2 for 1.5 times less than doubled, 3 for less than 1.5 times, 4 for not changed and 5 for declined). We take the industrial averages of the variable and subtract the mean from the company level variable.

**CG:** As independent variables of governance mechanism, we adopt two ownership variables taking into account the findings of the previous studies on managerial turnover in Russia mentioned in the second section. They consist of, first, a dummy for the existence of dominant shareholders \((DOMSHA)\) and, second, an index for ownership share by foreign investors \((OWNFOR)\) that takes 0 for zero, 1 for 10% or less, 2 for 10.1–25%, 3 for 25.1–50%, 4 for 50.1–75 and 5 for more than 75%. The dominant shareholder is defined as that shareholder who owns more than 50% of common stock and has controlling interest.\(^{16}\)

\( X \): Furthermore, we introduce the following variables to control other firm specificity: (a) natural logarithms of the number of employment as a proxy of company size \((COMSIZ)\), (b) industry dummies to control industry fixed effects, and (c) an internal conflict dummy that takes unity if the company experienced infighting between managers and shareholders in 2001–04 \((INTCON)\).

**Table 3** shows the descriptive statistics for all 407 respondents and those for each turnover type (company groups). The table also reports the results of analysis of variance among the four company groups for each of the independent variables. Among 407 companies, 53 firms (13.0%) reported experiencing turnover of both the CEO and senior managers (Type I). Combining Type I rate was not expected to be high. The ratio is approximately one third, that is, one in three company executives refused to participate in the survey (Dolgopyatova and Iwasaki, 2006).

\(^{16}\) Although the survey covers current board composition, it did not ask the composition before the turnover event. While we could have included board composition in our explanatory variables, we did not do so because (1) turnover of top executives likely precedes changes in board composition so that the endogeneity issue is serious, (2) in many cases, when we include information concerning the outside board member ratio, our likelihood functions fail to converge, and (3) for some cases in which we could obtain the maximum, the outside board member ratio was not statistically significant.
and II (CEO only turnover), about 25% of companies experienced turnover of the CEO initiated by shareholders. The mean dividend payment dummy is 0.46 for Type IV (no turnover) and 0.30 for Type II, suggesting companies whose CEO resigned recently did not pay dividends. Companies with a greater proportion of foreign shareholders went through Type I and Type II turnovers more than other types of turnover. The most noticeable aspect of the data shown in Table 3 is the role of dominant shareholders in turnover. More than 90% of companies whose CEO and managers resigned had a dominant shareholder, while around 70% of the companies that did not experience any managerial turnover had a dominant shareholder. On the whole, Table 3 suggests that companies with a dominant shareholder and a larger proportion of ownership share by foreigners experienced Type I turnover. The results from analysis of variance indicate that there are statistically significant differences at the 10% or less level among the company groups in terms of the frequency of dividend payment and the ownership structure in a company. Overall, these findings seem to be consistent with the three hypotheses discussed in the previous section.

6. Empirical results

In this section, we present the results of multivariate regression analysis in order to evaluate the impacts of corporate performance and ownership structure on managerial turnover. Our analysis begins with an examination of the determinants of chief executive dismissal by the logit model, taking the CEO turnover dummy as a dependent variable. Next, we perform the MNP estimation of managerial turnover using the four mutually exclusive turnover indices capturing the magnitude of managerial removal in the scale of whole company.

Table 4 contains the standard logit estimates of CEO turnover under several different specifications. Model [L1] uses both two proxies for firm performance, i.e., dividend payment dummy (DIVPAY) and sales growth rate (SALGRO), while the other models (Models [L2] to [L4]) adopt either or neither of them. All the models include the industry dummies. The results reported in Table 4 show that corporate performance represented by both dividend payment and sales growth rate does not have statistically significant impacts on CEO turnover. In contrast, we can observe positive significant effects of the presence of a dominant shareholder (DOMSHA) and foreign ownership (OWNFOR) on the dismissal of CEOs initiated by shareholders. Largely, our logit estimates reported in Table 4 confirm the main findings of preceding studies, which suggest a weak correlation between firm performance and CEO turnover, and the significant impact of ownership structure on top management removal.

Next, we examine the joint turnover of CEOs and senior managers in our samples. Table 5 reports the estimates of the MNP models. Similarly to the estimation of logit models, Model [M1] uses both proxies of DIVPAY and SALGRO for firm performance, while Models [M2] to [M4] adopt either or neither of them. The base category for our MNP estimation concerns those
firms with no turnover events (Type IV). This time, we confirm negative significant impacts of performance on CEO turnover (Type II). That is to say, dividend payment dummy is negatively related to CEO dismissal with statistical significance at the 5% level. We can also observe significant negative effects of the dividend payment dummy on Type III turnover (dismissal of senior managers but not the CEO). However, there are no significant effects of firm performance on Type I turnover (dismissals of both the CEO and senior managers). Probably, the failure of previous research in finding a significant relationship between firm performance and CEO dismissals stems from the clear difference between Type I and Type II turnovers. This result confirms our hypothesis $H1$.

The estimation result of Model [M1] also reveals that the presence of a dominant shareholder ($DOMSHA$) is positively related to Type I turnover and its impact is much stronger than that of foreign ownership ($OWNFOR$) in terms of statistical significance, while $OWNFOR$ affects Type II turnover probability far greater than $DOMSHA$. We interpret these results as evidence that different type of ownership has distinct influence on managerial turnover as expected in the hypotheses $H2$ and $H3$.

To investigate what kinds of firm have higher turnover likelihood given poor firm performance, we estimated Model [M2] that restricts the sample to firms not paying dividends.$^{17}$ Similarly, in Model [M3] we concentrate on firms with negative sales growth, while Model [M4] uses firms with no dividend payments and negative sales growth. Although the effects of ownership variables reported in these models are generally weak, we found that both $DOMSHA$ and $OWNFOR$ are significant and positive in Model [M3] of Type I turnover, suggesting that a dominant shareholder and a foreign investor(s) tend to dismiss not only CEO but also other high-ranking executives all together, when their company is performing badly in terms of sale record.

In addition, the turnover of a CEO or senior managers may be attributable to internal conflicts occurring between outside shareholders and management. In Russia, company infighting is not an extraordinary case, rather an everyday incident; in fact, 206, or 25.1%, of the 822 surveyed firms responded that they had experienced a serious internal conflict(s) at least once in the period 2001 to 2004.$^{18}$ Poor firm performance, or ownership structure and other company characteristics could trigger such conflict. There is a possibility that the statistical relationship between turnover and other variables is spurious and that conflict could explain the turnover. To check this possibility, we include an internal conflict dummy, in which the value of 1 is assigned to companies that experienced infighting between managers and shareholders in 2001–04, in the independent variables. However, the conflict dummy is generally insignificant in both Tables 4 and 5.

$^{17}$ Usually, interaction terms are used to investigate the effects of ownership structures on turnover when firm performance is poor. Although it is not impossible to implement the approach, we do not adopt it here because estimations with the interactions of two dummy variables are very unstable.

$^{18}$ See Dolgopyatova and Iwasaki (2006, p. 52).
suggesting the occurrence of internal conflict itself does not affect our estimates of turnover models to a great extent.  

7. Concluding remarks

Although the corporate governance literature provides much empirical evidence of the significant association between corporate performance and CEO turnover in developed countries, the majority of research on Russian firms shows a rather weak or absent relation. The little correlation between the two factors may be attributable either to an insufficient number of observations of turnover events in previous studies or the authors implicitly assuming that the Russian manner of managerial dismissal is very similar to that in the United States, disregarding the collective nature of the management system in Russian firms, especially in ex-socialist enterprises.

Using a unique firm-level dataset obtained from the Japan-Russia large-scale enterprise survey conducted in 2005, we attempted to deal with these two potential problems. The estimation results of the MNP model reported in the previous section strongly suggest that nonpayment of dividends as a proxy of poor firm performance is significantly correlated with managerial turnover, which is in stark contrast to the standard logit estimation of CEO turnover as determined in the preceding studies. It is possible that utilizing information on various types of turnover simultaneously can increase the statistical power to reject the null hypothesis.

We also found that the presence of a dominant shareholder or a foreign investor(s) is another important factor in the instigation of managerial dismissal in Russian corporations. This finding, in the main, concurs with previous work. However, it is more important to point out from an analytical viewpoint that these two kinds of shareholder may have different effects on managerial turnover in terms of its magnitude. This might be due to a perceptible difference in behavioural patterns between domestic and foreign investors.

At any rate, our empirical finding of a relationship between dividend payment and managerial turnover indicates the growing respect for shareholder wealth in Russia among domestic investors. As the transition to a market economy continues, we may, even in the near future, see more visible change in the empirical results in they relate to Russia firms.

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19 Excluding the internal conflict dummy does not largely change the estimates in either Table 4 or 5.
References


Filatotchev, I., Wright, M., Buck, T and Dyomina, N., 1999b. Exporting and restructuring in privatized firms from Russia, Ukraine, and Belarus. World Economy 22(7), 1013-1037.


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Studies 45(2), 148-172.


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### Table 1. Studies of CEO turnover in Russian firms

<table>
<thead>
<tr>
<th>Paper</th>
<th>Survey period</th>
<th>Reports CEO turnover frequency</th>
<th>Examines determinants of CEO dismissals</th>
<th>Tests impact of CEO renewal on firm performance and restructuring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frydman et al. (1996)</td>
<td>1994</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Klepach et al. (1996)</td>
<td>1995</td>
<td>✓</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Filatotchev et al. (1999a)</td>
<td>1992-1996</td>
<td>✓</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Filatotchev et al. (1999b)</td>
<td>1995-1998</td>
<td>✓</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Golsman (2000)</td>
<td>1999</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bevan et al. (2001)</td>
<td>2000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kapelyushnikov (2001)</td>
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<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peng et al. (2003)</td>
<td>1995</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wright et al. (2003)</td>
<td>1997</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Source*: Compiled by the authors.
Table 2. Differences in organizational culture between Russia and the United States in terms of the dimensions of power distance and individualism-versus-collectivism

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Power distance scores</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Russia</td>
<td>95</td>
<td>76</td>
<td>16.38</td>
<td>88.7</td>
<td>88.1</td>
<td>40</td>
<td>5.52</td>
</tr>
<tr>
<td>United States</td>
<td>40</td>
<td>n/a</td>
<td>12.70</td>
<td>42.3</td>
<td>42.0</td>
<td>n/a</td>
<td>4.88</td>
</tr>
<tr>
<td>(b) Individualism-collectivism scores</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Russia</td>
<td>50</td>
<td>26</td>
<td>9.24</td>
<td>40.1</td>
<td>45.0</td>
<td>41</td>
<td>5.63</td>
</tr>
<tr>
<td>United States</td>
<td>91</td>
<td>n/a</td>
<td>13.41</td>
<td>88.9</td>
<td>88.7</td>
<td>n/a</td>
<td>4.25</td>
</tr>
</tbody>
</table>

Source: Compiled by the authors.

Notes: (1) This table presents the raw country scores in each study. In general, country scores were calculated by summing the responses of each respondent and averaging the individual scores by each cultural dimension. (2) Scores for Russia are estimated. (3) Higher scores indicate higher power distance. (4) Higher scores indicate greater individualism except for those in House et al. (2004). In House et al. (2004), higher scores indicate greater collectivism.
Figure 1. 61 societies in the power distance and individualism-versus-collectivism dimensions

Source: Illustrated by the authors based on House et al. (2004).

Note: Country scores are standardized into a distribution with a mean of zero and standard deviation of one.
Table 3. Descriptive statistics and definitions of independent variables used in the empirical analysis, and results from an analysis of variance among company groups in terms of turnover type

<table>
<thead>
<tr>
<th>Company groups (No. of observations, %)</th>
<th>DIVPAY</th>
<th>SALGRO</th>
<th>DOMSHA</th>
<th>OWNFOR</th>
<th>COMSIZ</th>
<th>INTCON</th>
</tr>
</thead>
<tbody>
<tr>
<td>All firms (N=407, 100%)</td>
<td>Mean</td>
<td>0.408</td>
<td>-0.197</td>
<td>0.740</td>
<td>0.376</td>
<td>6.688</td>
</tr>
<tr>
<td></td>
<td>S.D.</td>
<td>0.492</td>
<td>1.296</td>
<td>0.439</td>
<td>1.004</td>
<td>1.312</td>
</tr>
<tr>
<td></td>
<td>Median</td>
<td>0.000</td>
<td>0.000</td>
<td>1.000</td>
<td>0.000</td>
<td>6.397</td>
</tr>
<tr>
<td>Firms with turnover of CEO and senior managers: Type I (N=53, 13.0%)</td>
<td>Mean</td>
<td>0.434</td>
<td>-0.151</td>
<td>0.906</td>
<td>0.585</td>
<td>7.025</td>
</tr>
<tr>
<td></td>
<td>S.D.</td>
<td>0.500</td>
<td>1.167</td>
<td>0.295</td>
<td>1.232</td>
<td>1.547</td>
</tr>
<tr>
<td></td>
<td>Median</td>
<td>0.000</td>
<td>0.000</td>
<td>1.000</td>
<td>0.000</td>
<td>6.687</td>
</tr>
<tr>
<td>Firms with CEO turnover only: Type II (N=47, 11.5%)</td>
<td>Mean</td>
<td>0.298</td>
<td>-0.383</td>
<td>0.745</td>
<td>0.638</td>
<td>6.823</td>
</tr>
<tr>
<td></td>
<td>S.D.</td>
<td>0.462</td>
<td>1.540</td>
<td>0.441</td>
<td>1.451</td>
<td>1.349</td>
</tr>
<tr>
<td></td>
<td>Median</td>
<td>0.000</td>
<td>0.000</td>
<td>1.000</td>
<td>0.000</td>
<td>6.507</td>
</tr>
<tr>
<td>Firms with turnover of senior managers only: Type III (N=77, 18.9%)</td>
<td>Mean</td>
<td>0.312</td>
<td>-0.078</td>
<td>0.740</td>
<td>0.390</td>
<td>6.607</td>
</tr>
<tr>
<td></td>
<td>S.D.</td>
<td>0.466</td>
<td>1.295</td>
<td>0.441</td>
<td>0.989</td>
<td>1.296</td>
</tr>
<tr>
<td></td>
<td>Median</td>
<td>0.000</td>
<td>0.000</td>
<td>1.000</td>
<td>0.000</td>
<td>6.215</td>
</tr>
<tr>
<td>Firms with no turnover: Type IV (N=230, 56.5%)</td>
<td>Mean</td>
<td>0.457</td>
<td>-0.209</td>
<td>0.700</td>
<td>0.270</td>
<td>6.609</td>
</tr>
<tr>
<td></td>
<td>S.D.</td>
<td>0.499</td>
<td>1.275</td>
<td>0.459</td>
<td>0.813</td>
<td>1.244</td>
</tr>
<tr>
<td></td>
<td>Median</td>
<td>0.000</td>
<td>0.000</td>
<td>1.000</td>
<td>0.000</td>
<td>6.397</td>
</tr>
</tbody>
</table>

Analysis of variance among company groups

<table>
<thead>
<tr>
<th></th>
<th>F</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ANOVA (F)</td>
<td>2.590</td>
<td>*</td>
<td>0.650</td>
<td>3.200 **</td>
<td>2.730 ***</td>
<td>1.710</td>
</tr>
<tr>
<td></td>
<td>(0.052 )</td>
<td>(0.582 )</td>
<td>(0.023 )</td>
<td>(0.003 )</td>
<td>(0.165 )</td>
<td>(0.539 )</td>
</tr>
<tr>
<td>Bartlett test (χ²)</td>
<td>0.863</td>
<td></td>
<td>3.755</td>
<td>13.646 ***</td>
<td>38.802 ***</td>
<td>4.471</td>
</tr>
<tr>
<td></td>
<td>(0.834 )</td>
<td>(0.289 )</td>
<td>(0.003 )</td>
<td>(0.000 )</td>
<td>(0.215 )</td>
<td>(0.779 )</td>
</tr>
<tr>
<td>Kruskal-Wallis test (χ²)</td>
<td>7.689 *</td>
<td>1.163</td>
<td>9.444 **</td>
<td>6.857</td>
<td>3.617</td>
<td>2.171</td>
</tr>
<tr>
<td></td>
<td>(0.053 )</td>
<td>(0.762 )</td>
<td>(0.024 )</td>
<td>(0.077 )</td>
<td>(0.306 )</td>
<td>(0.538 )</td>
</tr>
</tbody>
</table>

Source: Authors' calculation.

Notes: p-values are in parentheses. *, ** and *** denote the 10%, 5% and 1% significance level, respectively.

a Frequency of dividend payments during 2001 and 2003.

b Changes in gross sales during 2000 and 2004, industry-adjusted as departure from industrial mean. The changes are rated on the following 5-point scale: -2: decreased by 20% or more; -1: decreased by less than 20%; 0: no change; 1: increased by less than 20%; 2: increased by 20% or more.

c A dichotomous variable with a value of 1 if the company has a dominant shareholder.

d Ownership share of foreign investors rated on the following 6-point scale: 0: 0%; 1: 10.0% or less; 2: 10.1 to 25.0%; 3: 25.1 to 50.0%; 4: 50.1 to 75.0%; 5: 75.1 to 100.0%.

e Company size measured by the total number of employees.

f A dichotomous variable with a value of 1 if the company experienced an internal conflict(s) between management and shareholders in the period from 2001 to 2004.
Table 4. Logit regression analysis of the impacts of governance structure and firm performance on CEO turnover

<table>
<thead>
<tr>
<th>Model</th>
<th>[L1]</th>
<th>[L2]</th>
<th>[L3]</th>
<th>[L4]</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIVPAY</td>
<td>-0.3982</td>
<td>-0.3862</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(-1.48)</td>
<td>(-1.45)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SALGRO</td>
<td>-0.0933</td>
<td>-0.0873</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-(0.98)</td>
<td>-(0.91)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DOMSHA</td>
<td>0.6965**</td>
<td>0.7097**</td>
<td>0.6936**</td>
<td>0.7082**</td>
</tr>
<tr>
<td></td>
<td>(2.25)</td>
<td>(2.31)</td>
<td>(2.24)</td>
<td>(2.30)</td>
</tr>
<tr>
<td>OWNFOR</td>
<td>0.2688**</td>
<td>0.2709**</td>
<td>0.2631**</td>
<td>0.2652**</td>
</tr>
<tr>
<td></td>
<td>(2.25)</td>
<td>(2.27)</td>
<td>(2.21)</td>
<td>(2.22)</td>
</tr>
<tr>
<td>COMSIZ</td>
<td>0.1898*</td>
<td>0.1669</td>
<td>0.1757*</td>
<td>0.1547</td>
</tr>
<tr>
<td></td>
<td>(1.79)</td>
<td>(1.59)</td>
<td>(1.68)</td>
<td>(1.49)</td>
</tr>
<tr>
<td>INTCON</td>
<td>0.3070</td>
<td>0.2543</td>
<td>0.3332</td>
<td>0.2798</td>
</tr>
<tr>
<td></td>
<td>(1.14)</td>
<td>(0.96)</td>
<td>(1.24)</td>
<td>(1.06)</td>
</tr>
<tr>
<td>Constant</td>
<td>-2.8455***</td>
<td>-2.9461***</td>
<td>-2.7445***</td>
<td>-2.8516***</td>
</tr>
<tr>
<td></td>
<td>(-3.12)</td>
<td>(-3.23)</td>
<td>(-3.05)</td>
<td>(-3.16)</td>
</tr>
</tbody>
</table>

Industry dummies: Yes

N: 407


Source: Authors' estimation.

Notes: dF/dx denotes marginal effects of independent variables. t-values are in parentheses. *, **, and *** denote 10%, 5%, and 1% significance, respectively. Definitions and descriptive statistics of independent variables used in estimation are reported in Table 3.
Table 5. Multinomial probit regression analysis of the impacts of governance structure and firm performance on managerial turnover taking its magnitude into consideration

<table>
<thead>
<tr>
<th>Model</th>
<th>[M1]</th>
<th>[M2]</th>
<th>[M3]</th>
<th>[M4]</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIVPAY</td>
<td>0.2476</td>
<td>0.4136</td>
<td>0.2011</td>
<td>0.2011</td>
</tr>
<tr>
<td>SALGRO</td>
<td>0.0003</td>
<td>0.0089</td>
<td>0.0003</td>
<td>0.0089</td>
</tr>
<tr>
<td>DOMSHA</td>
<td>1.0141***</td>
<td>0.3968</td>
<td>0.9851*</td>
<td>0.2011</td>
</tr>
<tr>
<td>OWNFOR</td>
<td>0.1802*</td>
<td>0.2055</td>
<td>0.4199*</td>
<td>0.4347</td>
</tr>
<tr>
<td>COMSIZ</td>
<td>1.0141***</td>
<td>0.3968</td>
<td>0.9851*</td>
<td>0.2011</td>
</tr>
<tr>
<td>INTCON</td>
<td>0.141</td>
<td>0.2415</td>
<td>0.6786</td>
<td>0.5328</td>
</tr>
<tr>
<td>Constant</td>
<td>-2.9090***</td>
<td>-3.3461***</td>
<td>-0.5023</td>
<td>-15.0226***</td>
</tr>
</tbody>
</table>

Source: Authors' estimation.

Notes: The base category for estimation is firms with no turnover (Type IV). dF/dx denotes marginal effects of independent variables. t-values are in parentheses. *, ** and *** denote the 10%, 5% and 1% significance level, respectively. Definitions and descriptive statistics of independent variables used in the estimation are reported in Table 3.